

THE AMERICAN GENERA OF ASILIDAE (DIPTERA): KEYS FOR IDENTIFICATION WITH AN ATLAS OF FEMALE SPERMATHECAE AND OTHER MORPHOLOGICAL DETAILS. IX.4. SUBFAMILY ASILINAE LEACH –*GLAPHYROPYGA* GROUP–, WITH THE PROPOSAL OF TWO NEW GENERA AND A CATALOGUE OF THE NEOTROPICAL SPECIES¹

Los géneros americanos de Asilidae (Diptera): Claves para su identificación, con un atlas de las espermatecas de las hembras y otros detalles morfológicos. IX.4. Subfamilia Asilinae Leach –grupo *Glaphyropyga*–, con la proposición de dos nuevos géneros y un catálogo de las especies neotropicales

JORGE N. ARTIGAS² AND NELSON PAPAVERO³

ABSTRACT

A key is given for the identification of 9 of the 10 American genera of the *Glaphyropyga* - group of Asilinae (Asilidae): *Glaphyropyga* Schiner, 1866 (= *Tapinostylus* Enderlein, 1914; = *Opopotes* Hull, 1958); *Leptoharpacticus* Lynch Arribalzaga, 1880; *Megalometopon*, nom. nov. (for *Megametopon* Artigas, 1970); *Neotes*, nom. nov. (for *Nesiotes* Artigas, 1970); *Nevadasilus*, gen. n. (for *Regasilus blantoni* Bromley); *Nomomyia* Artigas, 1970; *Tsacasia*, gen. n. (for *Tsacasia wagneri*, gen. n., sp. n.); and *Zoticus* Artigas, 1970. *Regasilus* Curran, 1931 was not included in the key for lack of material. A catalogue of the neotropical species is included.

KEYWORDS. America. Neotropic. *Glaphyropyga*. *Nevadasilus* gen.n. *Tsacasia* gen.n. *Neotes* nom. nov. Taxonomy. Catalogue.

RESUMEN

Se da una clave para la identificación de 9 de los 10 géneros americanos del grupo-*Glaphyropyga* de Asilinae (Asilidae): *Glaphyropyga* Schiner, 1866 (= *Tapinostylus* Enderlein, 1914; = *Opopotes* Hull, 1958); *Leptoharpacticus* Lynch Arribalzaga, 1880; *Megalometopon*, nom. nov. (para *Megametopon* Artigas, 1970); *Neotes*, nom. nov. (para *Nesiotes* Artigas, 1970); *Nevadasilus*, gen. n. (para *Regasilus blantoni* Bromley); *Nomomyia* Artigas, 1970; *Tsacasia*, gen. n. (para *Tsacasia wagneri*, gen. n., sp. n.); y *Zoticus* Artigas, 1970. *Regasilus* Curran, 1931 no ha sido incluido en la clave por falta de material. Se agrega un catálogo de las especies.

¹This research was supported by the Fundação de Amparo à Pesquisa do Estado de São Paulo (FAPESP, Grants 83/1772-5, 86/2227-1, 87/3170-8 and 94/2344-6), and Proyecto N° 203812, Dirección de Investigación, Universidad de Concepción.

²Universidad de Concepción, Facultad de Ciencias Naturales y Oceanográficas, Departamento de Zoología.

³Museu de Zoologia, Universidade de São Paulo. Pesquisador do Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq, Proc. N° 30.0994/79).

INTRODUCTION

This is the part IX.4. of a series of papers intended as a preliminary effort to define the American genera of Asilidae, describing the new genera, preparatory to the elaboration of a catalogue of Neotropical species for inclusion in the forthcoming World Catalogue of Flies, now being prepared by the U.S. Department of Agriculture and U.S. National Museum of Natural History, Washington, D.C.

Previous parts in this series (published and in press) are:

Part I (Key to subfamilies, subfamily Leptogastrinae): Gayana, Zool. 52(1-2): 95-114, 1988;

Part II (Dasypogoninae): Gayana, Zool. 52(3-4): 199-260, 1988;

Part III (Trigonimiminae): Bol. Soc. Biol. Concepción, 60: 35-41, 1989;

Part IV (Laphriinae, except Atomosiini): Bolm. Mus. paraense E. Goeldi, Zool. 4(2): 211-255, 1988;

Part V (Stichopogoninae): Bol. Soc. Biol. Concepción, 61: 39-47, 1990;

Part VI (Laphriinae, Astomosini): Gayana, Zool. 55(1): 53-87, 1991;

Part VII.1 (Stenopogoninae, key to tribes): Gayana, Zool. 55(2): 139-144, 1991.

Part VII.2 (Stenopogoninae, Tribes Acronychini, Bathypogonini and Ceraturgini): Gayana, Zool. 55(3): 247-255, 1991;

Part VII.3 (Stenopogoninae, Tribes Diocriini and Echthodopini): Gayana, Zool. 55(4): 261-266, 1992;

Part VII.4 (Stenopogoninae, Tribe Enigmomorphini): Bol. Soc. Biol. Concepción 62: 27-53, 1992;

Part VII.5 (Stenopogoninae, Tribe Tillobromini): Rev. chil. Ent. 19: 17-27, 1992;

Part VII.6 (Stenopogoninae, Tribes Phellini, Plesiommatini, Stenopogonini and Willis-toninini): Gayana, Zool. 57(2): 309-321, 1994;

Part VII.7 (Stenopogoninae, Tribe Cyrtopogonini):

Bol. Soc. Biol. Concepción 62:55-8, 1992;

Part VIII (Laphystiinae): Arquivos de Zoologia

Part IX.1 (Asilinae, key to generic group): Arquivos de Zoologia

Part IX.2 (Asilinae, *Efferia*-group): Arquivos de Zoologia

Part IX.3 (Asilinae, *Eichoichemus*-group): Gayana, Zool. 59(1): 97-102, 1995

MATERIAL AND METHODS

The material used in this series belong mainly to the Museu de Zoologia da Universidade de São Paulo, Brazil, and to the Departamento de Zoología de la Universidad de Concepción, Chile.

The methodology employed in the dissection and preservation of the male terminalia, female spermathecae and other morphological parts is the same used by Artigas (1971).

List of abbreviations:

AMNH : American Museum of Natural History, New York

BMNH : British Museum (Natural History), London

CNPq : Conselho Nacional de Desenvolvimento Científico e Tecnológico

FAPESP : Fondo de Amparo à Pesquisa do Estado de São Paulo

FRAN : Senckenbergische Naturforschende Gesellschaft, Natur-Museum und Forschungsanstalt, Frankfurt

MNHNP : Muséum National d'Histoire Naturelle, Paris

MZUSP : Museu de Zoologia, Universidade de São Paulo

UCCS : Colecciones Científicas, Universidad de Concepción

UCV : Universidad Central de Venezuela

USNM : United States National Museum of Natural History, Washington, D.C.

RESULTS

GLAPHYROPYGA - GROUP

Key to American genera*

1. Face extremely narrow, 1/10 to 1/12 width of head (Fig. 2), gibba restricted to its lower 1/3 (Figs. 1-2). Antenna characteristically with a very long and slender basal flagellomere, which is subequal to or 1.5-2 times as long as the combined length of scape and pedicel; stylus (3rd flagellomere) of variable length -from very short, shorter than pedicel, to very long and slender (Figs. 1, 4, 5, 6). Mesonotum with anterior dorsocentral bristles present. Legs slender, male hind basal tarsomere very long, as long as tarsomeres 2-5 or 2-4. Male terminalia as in Figs. 8-10: epandrium 4 times as long as wide, slightly curved in at apex. Ovipositor shining, conical, subequal to abdominal segment 7 (Figs. 11-13). 3 spermathecae present, originating from short common duct, with oblong capsules (Fig. 14). Length, 12-20 mm (Central America and South America, but not in Chile)
 *Glaphyropyga* Schiner, 1866

- Face broader, 1/4 to 1/7 width of head. Antenna never as above. Male hind basal tarsomere never as above. Other combination of characters 2

- 2(1). First abdominal tergite, as seen from above, with a median, longitudinal depression, and sometimes with the posterior border, at its central portion, appearing as if it were interrupted (see Artigas, 1970: 345) 3

- First abdominal tergite never as above 4

- 3(2). Medium-sized flies (body length, 12 mm; wing length, 8 mm). Face narrow in frontal view (1/7 width of head) (Fig. 16). Proboscis only slightly surpassing apex of gibbosity (Fig. 15). Mystax occupying entire gibbosity (Figs. 15-16). Mesonotum with very long, fine, bristles and hairs, the latter, on the anterior slope, almost as long as the combined length of scape and pedicel. Scutellum with long, fine hairs on disc and at least 6 marginal scutellar bristles present. Male terminalia as in Figs. 19-21: epandrium much broadened apically, bearing spinules on its internal margin, its tip bent inwardly. Aedeagus as in Fig. 22. Ovipositor short, slightly laterally flattened (Figs. 23-25). Spermathecae as in Fig. 26: endosternite elongate; a long common duct; 3 elongate, slender capsules present (Chile)
 *Neotes*, nom. nov.

- Large and more robust flies (body length, 24.5 mm; wing length, 19.5 mm). Face at antennal level about 1/4 head's width (Fig. 28). Frons extremely narrow, the eyes convergent above; the face gradually widening towards oral margin; the ensemble frons-face, in frontal view (Fig. 28), therefore appearing roughly triangular-shaped. Mystax with a few bristles restricted to subcranial margin. Proboscis extending much beyond apex of gibbosity (Fig. 27). Mesonotum with very short, decumbent, almost spinule-like hairs, slightly longer on the posterior slope. Scutellum with similar hairs on disc; only 2 marginal scutellar bristles present. Male terminalia as in Figs. 31-33: epandrium long and slender, not curved in at apex, without spines, without apical incision. Ovipositor short and very broad, laterally flattened (Figs. 34-35). (The spermathecae were not dissected because we had only one female specimen belonging to the MNHNP collection) (Argentina) *Tsacasia*, gen. n.

- 4(2). Lateral margins of abdominal tergites 1-4 either with many long, fine hairs, or many coarse, bristles pile, in addition to 1-5 slender and long bristles, more or less compressed against the integument 5

- Lateral margins of abdominal tergites 1-4 never as above 6

- 5(4). Upper occipital hairs dense, strongly proclinate (at almost a 90° angle). Nostrongly differentiated bristles mixed with those hairs on upper occiput behind uppermost part of eyes. Anterior slope of mesonotum with long and fine hairs, almost as long as scape, becoming longer and denser on posterior slope. Wing with fork of R_{4+5} decidedly angulate (Fig. 38), sometimes with a stump vein. Male terminalia as in Figs. 40-42: epandrium very narrow at base, then suddenly broadened, apex more slender, acuminate in dorsal view. Aedeagus as in Figs. 43-44. Ovipositor oblong-shaped (Figs. 45-47). Spermathecae as in Fig. 48: long endosternite, a long common tube, 3 capsules with very characteristic shape. Length, 12-18.5 mm (Chile) *Megalometopon*, nom. nov.

Upper occipital hairs never as above, although somewhat crinkly. Behind the uppermost part of the eyes the occiput bears 2 groups of very strong and robust bristles, the inner group, consisting of 3-4 bristles, with their tips proclinate (Fig. 49). Anterior slope of the mesonotum with short, reclinate hairs. Wing with fork of R_{4+5} never angulate (Fig. 52). Male terminalia as in Figs. 54-56: epandrium very broad, with a short apical incision. Aedeagus as in Fig. 57. Ovipositor weakly laterally compressed, with characteristic spinule-like, short, bristly hairs (Figs. 58-59). Spermathecae as in Fig. 60: the 3 capsule are ovoid. Length, 18-21 mm (USA) *Nevadasilus*, gen.n.

- 6(4). Collar without bristles. R_1 angulate at base, at its junction with R_2 , and with a stump vein (Fig. 63). Male with dilated femora and costal border of wing expanded (see Artigas, 1970: fig. 361). Male terminalia as in Figs. 65-67: epandrium roughly oblongate, with short apical incision. Aedeagus as in Fig. 68. Ovipositor conical, short (Figs. 70-71). Spermathecae with 3 coiled capsules, very characteristic (Fig. 72). Length, 14.5-24.5 mm (Chile) *Nomomyia* Artigas, 1970

Collar with bristles. R_1 never with a stump vein (Figs. 76, 89). Other combinations of characters 7

- 7(6). Face decidedly gibbous on its lower 3/4 (Fig. 73). Femora robust, especially hind pair. Legs with many extremely conspicuous, long, white bristles, especially on the hind femur, in its anterior, posterior and ventral surfaces, in addition to more or less long, fine, appressed white hairs. Scutellum with 4-5 pairs of marginal; disc with semierect, long, fine hairs. Male terminalia as in Figs. 78-80: epandrium elongate, with a deep apical incision forming two characteristic apical processes; hypandrium with a dense apical tuft of flattened hairs. Aedeagus as in Fig. 81. Ovipositor very broadly conical (Figs. 83-85). Spermathecae with 3 long and slender, coiled capsules (Fig. 86). Length, 10-14.5 mm (Chile, Argentina) *Zoticus* Artigas, 1970

Face without a decided gibba, both gently swollen on its lower half (Fig. 87). Hind femur only 1.5 times as thick as its tibia. Legs never as above. Scutellum normally with 2 marginal bristles; disc with scanty, short, fine pile. Male terminalia as in Figs. 91-93: epandrium extremely slender at base, then greatly expanded, with an extremely short apical incision; hypandrium never with apical tuft of hairs. Aedeagus as in Fig. 94. Ovipositor conical (Figs. 96-98). Spermathecae with 3 capsules of characteristic shape, very similar to those of *Megalometopon* (Figs. 99 and 48, respectively). Length, 11-12 mm. (Argentina, Uruguay) *Leptoharpacticus* Lynch Arribalzaga, 1880

* *Regasilus* Curran, 1831, was not included in the above key because we have not examined material of this genus. As far as one can rely upon Hull's illustrations (1962: figs. 207, 685, 1406, 1415, 2200, 2209, 2421 and 2422), *Regasilus* differs from our new genus *Nevadasilus* in the following manner: the facial gibbosity is more prominent and rounded; in *Nevadasilus* it is anteriorly flattened; the epandrium in *Regasilus* seems to be more slender than in *Nevadasilus*, and acuminate in dorsal view (compare Hull's fig. 2209 with our fig. 55). From Hull's figs. 1406 and 1415 we cannot say whether *Regasilus strigarius* Curran has the modified, strong bristles on the upper occiput, 3-4 of them with strongly proclinate apex. From Hull's figs. 2421 and 2422 it seems that *Regasilus strigarius* lacks the extremely characteristic spinule-like bristly hairs of the female ovipositor. However, as we had no specimens of *Regasilus strigarius* available, we deemed it best not to include this genus in the key.

Genus *Glaphyropyga* Schiner

(Figs. 1-14)

Glaphyropyga Schiner, 1866: 668 (key), 647 (1868: 187, second erection of genus). Type-species, *Asilus himantocerus* Wiedemann (orig. des.).
Tapinostylus Enderlein, 1914: 256. Type-species, *setosifemur* Enderlein (orig. des.).
Opopotes Hull, 1958: 884. Type-species, *attenuatus* Hull (orig. des.). *N. syn.*

aristata Carrera, 1950: 29, fig. Type-locality: Panama, Canal Zone, Barro Colorado I. Distr.-Costa Rica, Panama. TP: USNM.

attenuata (Hull), 1958: 884 (*Opopotes*). Type-locality: 'Costa Rica'. HP: BMNH. *N. comb.*
dryas Fisher & Hespeneheide, 1982: 712, figs. [?]. Type-locality: Panama. HT [?]

himantocera (Wiedemann), 1828: 447 (*Asilus*). Type-locality: 'Brazil'. TP: FRAN.

pollinifera Carrera, 1945: 181, figs. 12-21. Type-locality: Brazil, São Paulo, São Paulo. Distr.-Brazil (Rio de Janeiro, São Paulo). HT: MZUSP.

setosifemur (Enderlein), 1914: 256, figs. 3-4 (*Tapinostylus*). Type-locality: Ecuador: Archidona and Santa Inez. TP [?]

venezuelensis Carrera & Machado-Allison, 1963: 256. Type-locality: Venezuela, Aragua, Rancho Grande, 1100 m. TP: UCV.

Genus *Leptoharpacticus* Lynch Arribálzaga

(Figs. 87-99)

Leptoharpacticus Lynch Arribálzaga, 1880: 178. Type-species, *Asilus mucius* Walker (orig. des.).

mucius (Walker), 1849: 463 (*Asilus*). Type-locality: Uruguay, Montevideo. TP: BMNH (lacking one antenna, both wings, pair of middle legs and hind left leg).

Genus *Megalometopon*, nom. nov

(Figs. 36-48)

Meganetopon Artigas, 1970: 312 (preocc. Gigliotto, 1891). Type-species, *Asilus occidentalis* Philippi (orig. des.).

Megalometopon, nom. nov. for *Meganetopon* Artigas, 1970. Type-species, *Asilus occidentalis* Philippi (aut.).

immisericorde (Artigas), 1970: 314, figs. 301-304, 422 (*Meganetopon*). Type-locality: Chile, Valparaíso, Perales. Distr.-Chile (Valparaíso, Santiago). HT: UCCC. *N. comb.*

occidentalis (Philippi), 1865: 696 (*Asilus*). Type-locality: Chile, Valdivia. Distr.-Chile (Aconcagua, Arauco, Cautín, Concepción, Curicó, Linares, Malleco, Santiago, Talca, Valdivia, Valparaíso). TP lost. NT (Chile, Talca, Armerillo). UCCC. *N. comb.*

Genus *Neotes*, nom. nov.

(Figs. 15-28)

Nesioties Artigas, 1970: 333 (preocc. Martens, 1860). Type-species, *chiloensis* Artigas (orig. des.).

Neotes, nom. nov. for *Nesioties* Artigas, 1970. Type-species, *Nesioties chiloensis* Artigas (aut.). (Arbitrary combination of letters, *Neotes* should be considered as a masculine noun).

chiloensis (Artigas), 1970: 334, figs. 345-352, 423 (*Nesioties*). Type-locality: Chile, Chiloé, Isla de Chiloé, Dalcahue. Distr.-Chile (Cautín, Chiloé, Osorno). HT: UCCC. *N. comb.*

Genus *Nevadasilus*, gen. n.

(Figs. 49-60)

Head, lateral view (Fig. 49): Eye much wider above than below; inferior part of eye attenuated, especially due to a notorious emargination on its postero-inferior part. Occiput very little produced, due to its very accentuated concavity. Beard very dense and long, the abundant hairs being silky; upper half of occiput with several white bristles; the uppermost portion of the occiput, behind the eyes, on each side, with two series of very strong, black bristles, 3 more inferiorly placed and 3-4 on the top, characteristically with proclinate tip; the 3 more inferiorly located strong bristles straight. Frons with medium-sized, proclinate bristles. Ocellar tubercle with many short hairs. Hairs at vertex dense, crinkly, somewhat proclinate. Face with a moderately swollen gibba occupying its lower 4/5; the gibba flattened anteriorly. Mystax composed of abundant, strong bristles, longer below, occupying entire gibbosity. Proboscis relatively short, reaching apex of lower bristles of mystax. Scape roughly 1.5 times as long as pedicel, with a few very long and robust black bristles below plus some shorter white

ones both on dorsal and ventral surfaces; pedicel with short bristles on dorsal and ventral surfaces; first flagellomere about 3/4 combined length of scape and pedicel; second flagellomere minute, third (stylus) subequal to scape (Figs. 49, 51).

Head, frontal view (Fig. 50): Vertex very narrow, eye slopes convergent. Ocellar tubercle little prominent, with several short hairs. Frons short, narrow, with proclinate bristles. Face at level of antennae 2/9 with of head, slightly widened below, at oral margin. Face and frons densely silvery-white tomentose.

Thorax: Collar with dense, long, fine hairs, plus some bristles on central portion. Mesonotum arched, 3-4 notopleurals, 3 supraalars located far behind the suture and 2-3 postcallars. Dorsocentrals and acrosticals long, numerous, robust, on posterior slope; some 3-4 pre-sutural dorsocentrals, and then, towards anterior slope of mesonotum, hairs on dorsocentral and acrostical rows diminishing in length. Hairs of mesonotum short, sparse, reclinate. Scutellum with more or less 8 pairs of marginal bristles, long, of different built (some strong and weak ones mixed); disc with many long hairs, which are proclinate. Scutellum with impressed rim. Anatergite bare. Pleura somewhat bare, a few longish hairs above middle and hind coxae, behind spiracle, under wing insertion. Katatergite with a few (10-12) long, strong bristles.

Wing as in Fig. 52: fork of R_{4+5} not angulate, arising slightly beyond apex of discal cell.

Legs: anterior coxa with very dense covering of long white hairs; the covering of hairs less dense in the middle coxae, and much scarcer on hind coxa. Anterior femur with long ventral hairs, rest covered by medium-sized, appressed hairs: middle femur similar to front one, venter with 5-6 strong, short spines; posterior femur elongate, with more or less dense, appressed pile, and some bristles ventrally, on the subdorsal apex with 2 notorious, curved bristles. Tibiae and tarsi with many strong, medium-sized bristles in addition to the appressed white hairs.

Abdomen with long hairs on the lateral margins of the tergites in addition to the lateromarginal bristles.

Male terminalia as in Figs. 54-56: epandrium very broad, with a very short apical incision; hypandrium short, its posterior margin slightly concave. Aedeagus with a single tube (Fig. 57).

Ovipositor (Figs. 58-59) slightly flattened laterally, with characteristic short, spinule-like bristly hairs.

Spermathecae as in Fig. 60.

Type-species: *Regasilus blantoni* Bromley, 1951 (USA: Nevada).

Comments: *Regasilus* Curran, 1931, was originally proposed for a species from Ecuador. Bromley included his species *blantoni* in *Regasilus*. See our discussion above, after the key. It is very difficult, not to say impossible, that a Neotropical genus extends into the Nearctic. Therefore we think we are justified in separating both these species generically.

Genus *Nomomyia* Artigas (Figs. 61-72)

Nomomyia Artigas, 1970: 336. Type-species,
Erax murinus Philippi (orig. des.).

ivetteae Artigas, 1970: 337, figs. 353-357, 475.
Type-locality: Chile, Coquimbo, El Pangue, s. of Vicuña. Distr.- Chile (Coquimbo, Santiago). HT: UCCC.

murina (Philippi), 1865: 694 (*Erax*). Type-locality: Chile, Santiago. Distr.- Chile.

Genus *Regasilus* Curran

Regasilus Curran, 1931: 24. Type-species, *strigarius* Curran (orig. des.)

strigarius Curran, 1931: 24 (as *strigaria*). Type-locality: Ecuador, Guayaquil. HT: AMNH.

Genus *Tsacasia*, gen. n. (Figs. 29-35)

Head, lateral view (Fig. 27). Eye slightly wider above than below. Occiput very little produced, with strong, medium-sized bristles on upper half. Face produced on lower half, forming a rounded gibbosity. Mystax restricted to oral border, the bristles scattered; gibbosity with medium-sized hairs. Proboscis long, straight, subcylindrical in cross-section, with a dorsal keel on basal half. Palpus short, shorter than half the length of oral cavity; cylindrical, with fine hairs. Scape nearly cylindrical, with medium-sized bristles mostly on dorsal and ventral surfaces; pedicel short, half the length of the scape, its bristles similar to those of the scape but shorter on dorsal surface; flagellum with

3 flagellomeres: the first about as long as scape, acuminate in the apex, second very short, ring-like, third very slender, about as long as combined length of scape and pedicel (Fig. 29).

Head, frontal view (Fig. 28). Face narrower above, mean width of face about 2/3 the eye width; frons narrow, its borders convergent. Ocellar tubercle low, dome-shaped, with short bristles.

Thorax. Mesonotum subrectangular, 3 notopleurals, 1 supraalar located far behind the suture, 2 postcallars. Scutellum with impressed rim (Fig. 30), 2 long marginal bristles, rest of margin and disc with scattered, short, bristly hairs. Pronotum with 4 strong and long bristles on each side. Mesonotal vestiture consisting of short, sparse, recumbent bristle-like hairs, longer on posterior surface, similar to those on the scutellar disc. Pleura almost bare, with a few short, very fine hairs, mainly on anepisternum and anepimeron. Katatergite with a tuft of long hairs, more or less arranged into lines. Anatergite bare. Short bristles on anepisternum and basalar sclerite.

Legs strong, fore and middle pairs with thick femora, tibiae with less than half the femora's width; hind pair of legs longer than the preceding, but femora thinner than the fore and middle ones and their tibiae straight or very gently curved. Claws well curved. Pulvilli almost reaching tip of claws. Empodium slightly shorter than pulvilli. All legs covered with fine hairs and short bristles.

Abdomen narrow, about half width of mesonotum, covered with hairs similar to those of mesonotum, only more appressed. 1-3 bristles on sides of each tergite.

Male terminalia (Figs. 31-33): slender, elongate; apex of epandrium curved in at apex, but only slightly.

Female ovipositor laterally compressed, very broad, beginning with segment 7 (Figs. 34-35).

Type-species, *Tsacasia wagneri*, gen. n., sp. n.

The generic name represents a homage to our friend Léonide Tsacas, from the Muséum National d'Histoire Naturelle de Paris.

Tsacasia wagneri, sp.n.
(Figs. 29-35)

Body length: 24.5 mm; wing length, 19.5 mm.

Male. Head black. Face with light-golden micropubescence, hairs and bristles whitish. Frons and occiput with grey pruinosity; frontal and ocellar

bristles black. Occipital bristles black, hairs of occiput white. Scape and pedicel reddish-brown, with black bristles; flagellum darker than scape and pedicel. Beard, hairs of proboscis and palpi white, bristles on apex of palpus black.

Thorax: Disc of mesonotum with grey pollinosity; two well-defined longitudinal blackish stripes, separated by a brownish line, situated on the middle, wider anteriorly, tapering posteriorly, not reaching posterior slope of mesonotum; two dark spots on each side of these, one anterior to and one posterior to transverse suture. Anterior calli slightly yellowish. Mesonotal vestiture black, bristles black. Lateral margins of mesonotal disc with whitish pruinosity. Pleura with white pollinosity, hairs white; upper part of posterior margin of anepisternum with a double row of small, black bristles; similar bristles present on the contiguous basalar sclerite. Bristles of pronotum black.

Wing brownish.

Legs: Coxae covered with pruinosity similar to that of pleura. Femora dark-brown; tibiae yellowish-brown; hairs on legs white, all bristles black; tarsomeres dark-brown. Hind femur with 4 strong bristles on lateral margin and a row of 10 bristles along the entire ventral side plus 5-7 smaller bristles in a short line parallel to the latter.

Abdomen black, covered by grey and black pruinosity; vestiture black. At the sides of the tergites, over the sternites, and at the sides of the terminalia, the hairs are white.

Female: Similar to the male. Ovipositor shining black, with back hairs except for a few yellow hairs on the tip and on the distal border of sternite 8.

Holotype male, ARGENTINA, Chaco de Santiago del Estero, 56 km s. of Icaño, 1910 (E.R. Wagner). Paratype: 1 female, same data of holotype. Both in the MNHP.

The specific name is a homage to the collector of the new species.

Genus *Zoticus* Artigas
(Figs. 73-86)

Zoticus Artigas, 1970: 368. Type-species, *toconaoensis* Artigas (orig. des.).

fitzroyi Artigas, 1974: 119, figs. 1-7. Type-locality: Argentina, Santa Cruz, 24 km s. of FitzRoy. HT: UCCC.

toconaoensis Artigas, 1970: 369, figs. 400-405, 489. Type-locality: Chile, Antofagasta, Toconao. Distr.- Chile (Antofagasta). HT: UCCC.

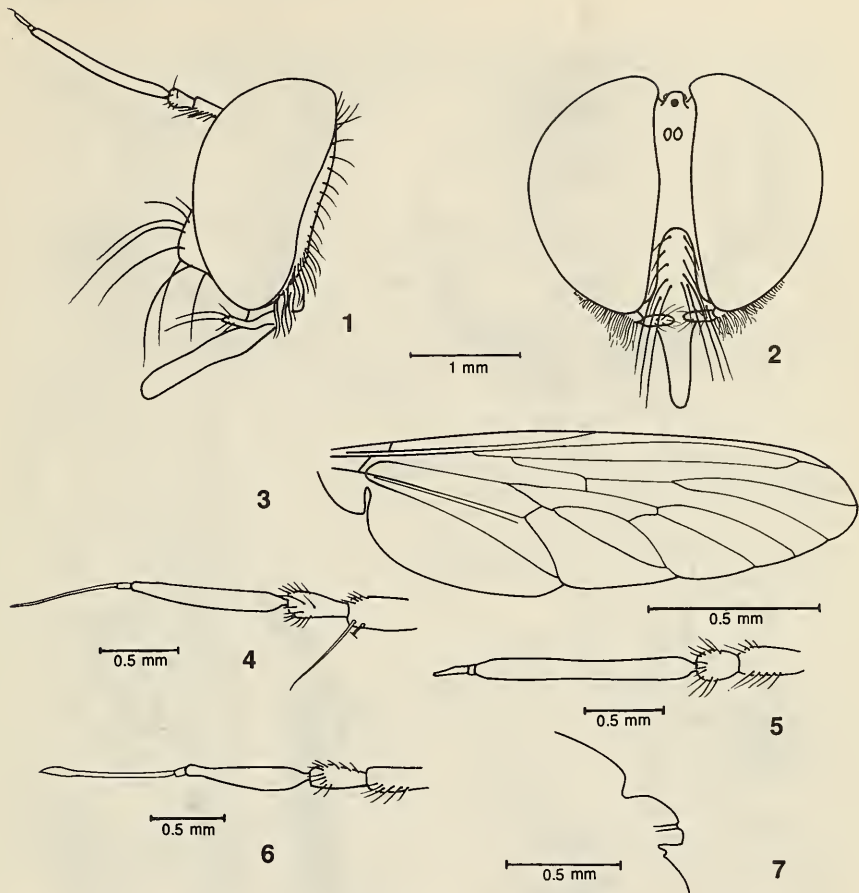
REFERENCES

- Artigas, J.N., 1970. Los asílidos de Chile (Diptera-Asilidae). *Gayana, Zool.* 17: 1-472, 504 figs.
- Artigas, J.N., 1971. Las estructuras quitinizadas de la spermatheca y funda del pene de los asílidos y su valor sistemático a través del estudio por taxonomía numérica. *Gayana, Zool.* 18: 1-106, 138 figs.
- Artigas, J.N., 1974. *Zoticus fitzroyi*, una nuev a especie de asílido de la Patagonia Argentina. *Rev. Chil. Ent.* 8: 119-121, 7 figs.
- Ayala, J.M., 1983. El género *Glaphyropyga* Schiner (Diptera, Asilidae), en Venezuela. *Bol. ent. venez. (NS)* 3 (2): 5-20.
- Bromley, S.W., 1951. Asilid notes (Diptera) with descriptions of thirty-two new species. *Am. Mus. Nov.* 1532: 1-36, 7 figs.
- Carrera, M., 1945. Estudo sôbre os gêneros *Glaphyropyga* e *Stenoprosopis* com descrição de novo gênero e novas espécies. *Papéis avulsos Zool., S. Paulo* 5 (19): 175-192, 38 figs.
- Carrera, M., 1950. Uma nova espécie de *Glaphyropyga* da Zona do Canal no Panamá. (Diptera, Asilidae). *Dusenía, Curitiba* 1: 27-32, 1 fig.
- Carrera, M. & C.E. Machado-Allison, 1963. Contribución al conocimiento de los Asilidae (Diptera) de Venezuela. *Acta biol. venez.* 3 (15): 233-267, 5 figs.
- Curran, C.H., 1931. New American Asilidae (Diptera). II. *Am. Mus. Nov.* 487: 1-25.
- Enderlein, G., 1914. Dipterologische Studien. XI. Zur Kenntnis tropischer Asiliden. *Zool. Anz.* 44 (6): 241-263, 8 figs.
- Fisher, E.M. & H.A. Hespeneide, 1982. Taxonomy and ethology of a new Central American species of robber fly in the genus *Glaphyropyga* (Diptera: Asilidae). *Proc. ent. Soc. Wash.* 84 (4): 716-725, 11.
- Hull, F.M., 1958. More flies of the family Asilidae (Diptera). *Ann. Mag. nat. Hist.* (12) 10: 884-895.
- Hull, F.M., 1962. Robber flies of the world. The genera of the family Asilidae. *Smithson. Inst. Bull.* 224 (1): 1-432, (2): 433-907, 2536 figs.
- Lynch Arribáizaga, E., 1880. Asilides argentinos. *An. Soc. ent. argent.* 9: 26-33, 49-57, 224-230, 252-265.
- Philippi, R.A., 1865. Aufzählung der chilenischen Dipteren. *Verh. zool.-bot. Ges. Wien* 15: 595-782.
- Schiner, I.R., 1866. Die Wiedemann'schen Asiliden, interpretiert und in die seither errichteten neuen Gattungen eingereiht. *Verh. zool.-bot. Ges. Wien* 16: 649- 722, 845-848, pl. 12.
- Walker, F., 1849. List of the specimens of dipterous insects in the collection of the British Museum 2: 231-484. London.
- Wiedemann, C.R.W., 1828. Aussereuropäische zweiflügelige Insekten 1: xxxii + 608 pp., 7 pls. Hamm.

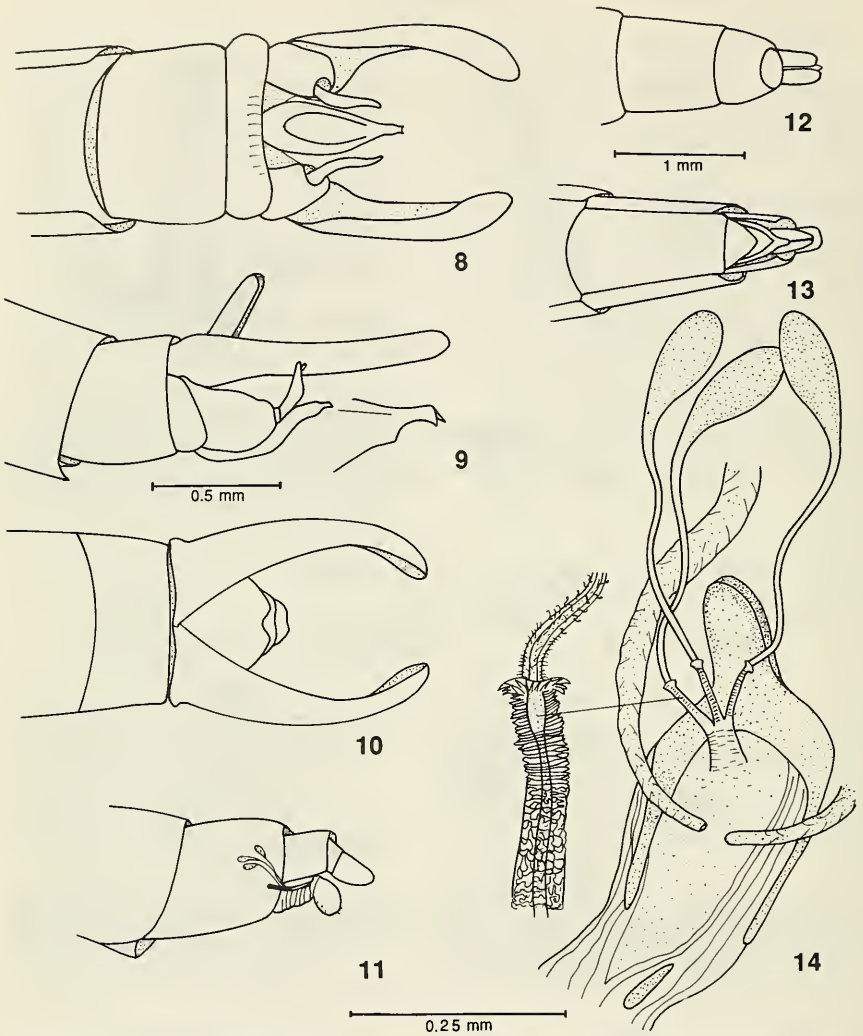
INDEX

(Synonyms in bold and italics)

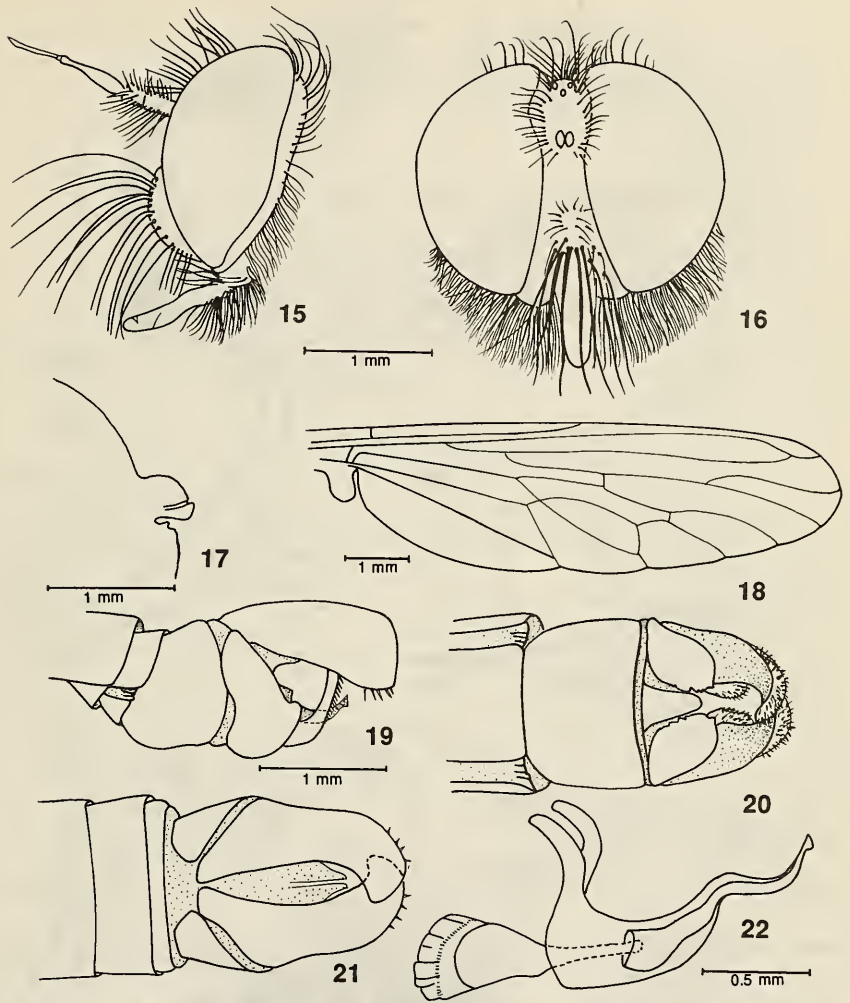
- aristata* Carrera, 1950, *Glaphyropyga*
- attenuata* (Hull), 1958 (Opopotes), *Glaphyropyga*
- blantoni* (Bromley), 1951 (Regasilus), *Nevadasilus*, figs. 49-60
- chiloensis* (Artigas), 1970 (Nesioties), *Neotes*, figs. 15-26
- dryas* Fisher & Hespeneide, 1982, *Glaphyropyga*
- fitzroyi* Artigas, 1974, *Zoticus*, figs. 73-86)
- Glaphyropyga* Schiner, 1866
- himantocera* (Wiedemann), 1828 (Asilus), *Glaphyropyga*, fig. 4),
- immisericorde* (Artigas), 1970 (Megametopon), *Megalometopon* figs. 36-48)
- ivetteae* Artigas, 1970, *Nomomyia* (Fig. 61-68)
- Leptoharpacticus* Lynch Arribalza, 1880, figs. 87-99
- Megalometopon*, nom. nov.
- Megametopon* Artigas, 1970
- muicus* (Walker), 1849 (Asilus), *Leptoharpacticus*
- murina* (Philippi), 1865 (Erax), *Nomomyia*, figs. 69-72
- Neotes*, nom. nov.
- Nesioties* Artigas, 1970
- Nevadasilus*, gen. n.
- Nomomyia* Artigas, 1970
- occidentale* (Philippi), 1865 (Asilus), *Megalometopon*
- Opopotes* Hull, 1958
- pollinifera* Carrera, 1945, *Glaphyropyga*, figs. 1, 2, 7-14
- Regasilus* Curran, 1931
- setosifemur* (Enderlein), 1914 (Tapinostylus), *Glaphyropyga*
- strigarius* Curran, 1931, *Regasilus*
- Tapinostylus* Enderlein, 1914
- toconoensis* Artigas, 1970, *Zoticus*
- Tsacasia*, gen. n.
- venezuelensis* Carrera & Machado-Allison, 1963, figs. 3, 5
- wagneri*, sp. n., *Tsacasia*, figs. 27-35
- Zoticus* Artigas, 1970



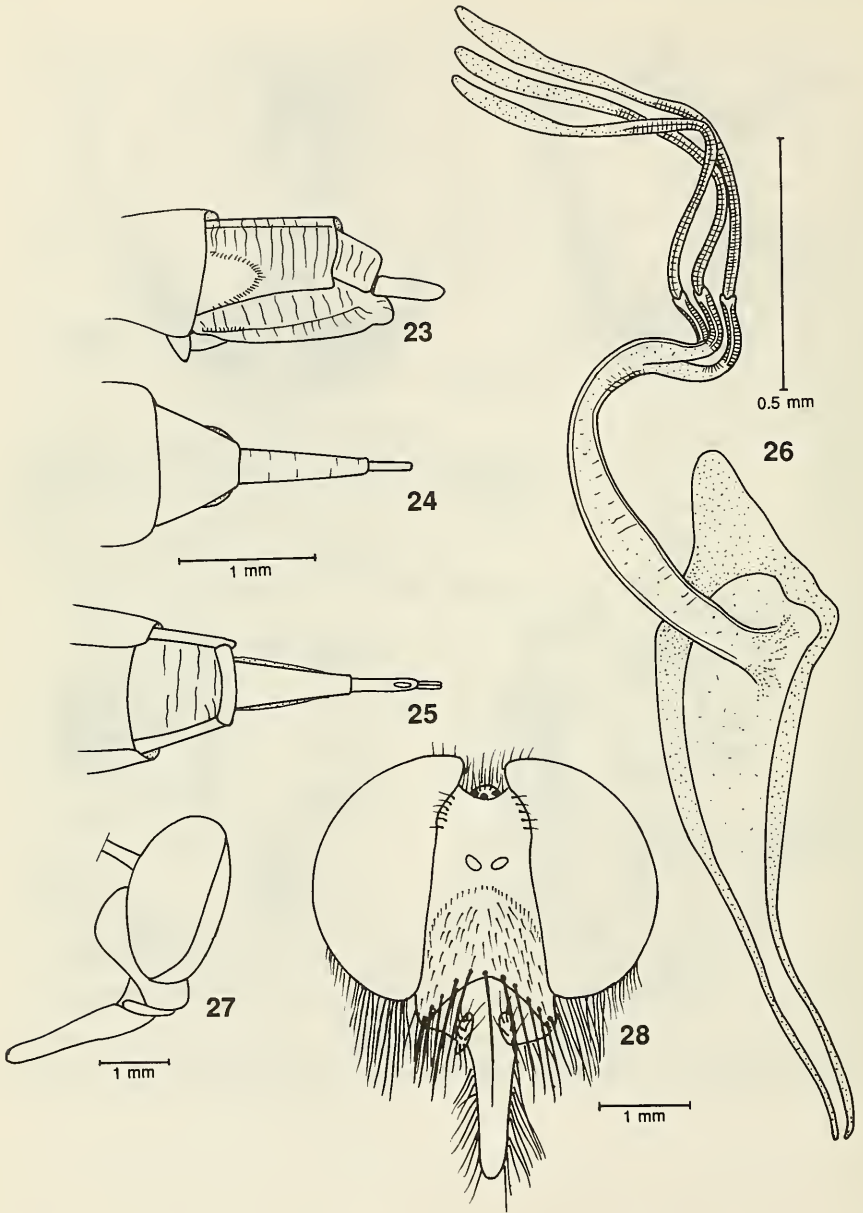
FIGURES. 1-7: *Glaphropyga pollinifera* Carrera. 1-2: head in lateral and frontal views; 3: *G. venezuelensis* Carrera & Machado-Allison, wing; 4-6: antennae of *G. aristata* Carrera (4), *G. himantocera* (Wiedemann) (5) and *G. venezuelensis* Carrera & Machado-Allison (6); 7: *G. pollinifera* Carrera, profile of scutellum.



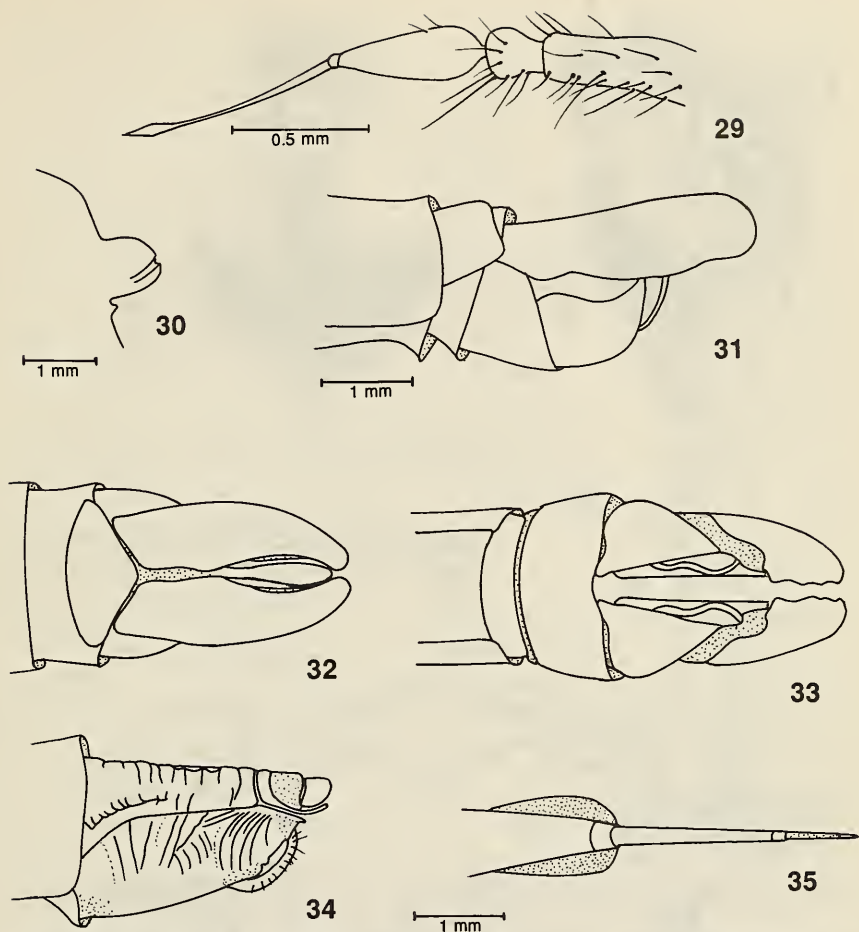
FIGURES. 8-14: *Glaphyropyga pollinifera* Carrera. 8-10: male terminalia in ventral, lateral and dorsal views; 11-13: female ovipositor in lateral, dorsal and ventral views; 14: spermathecae.



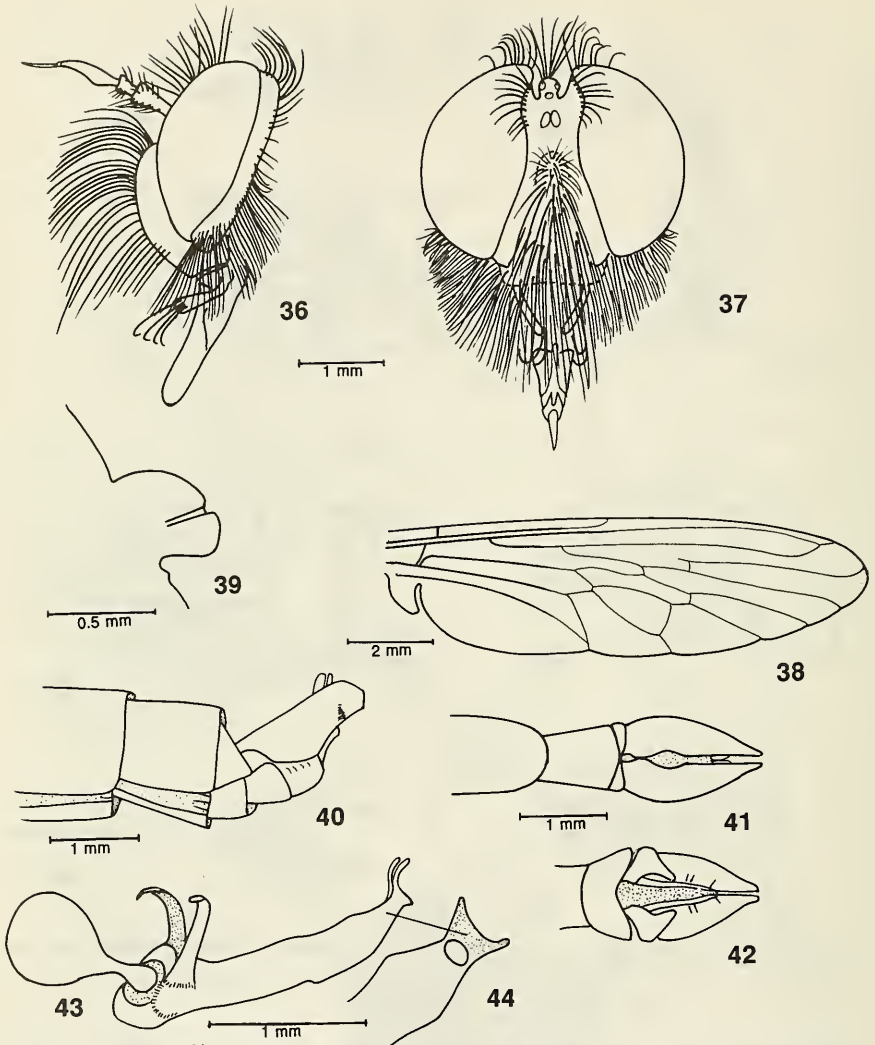
FIGURES. 15-22: *Neotes chiloensis* (Artigas). 15-16: head in lateral and frontal views; 17: profile of scutellum; 18: wing; 19-21: male terminalia in lateral, ventral and dorsal views; 22: aedeagus.



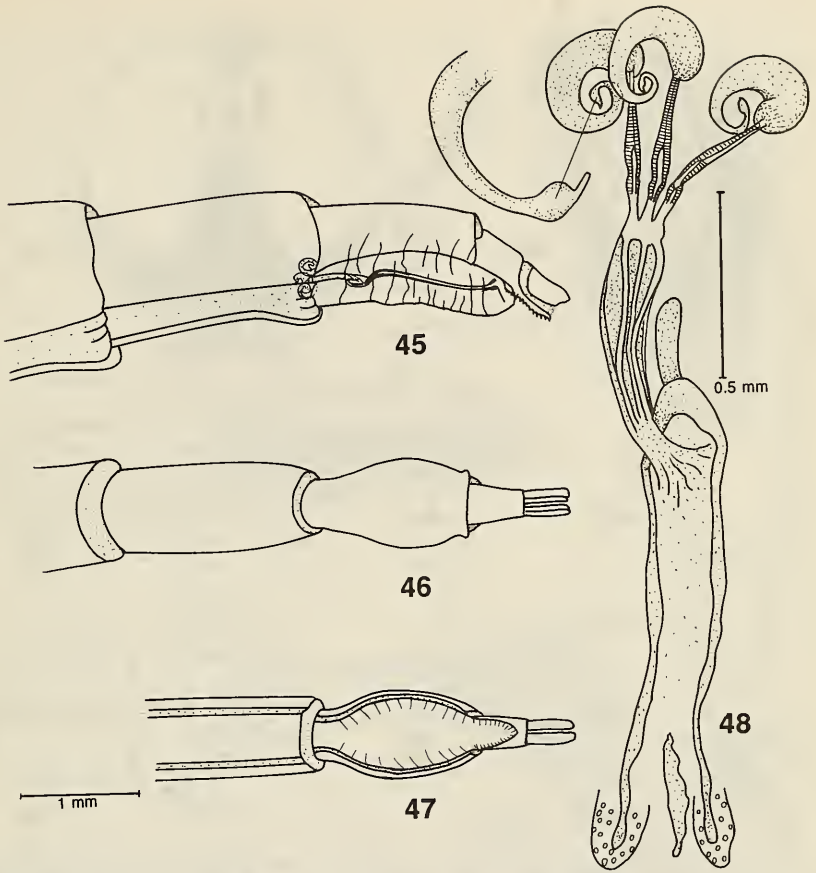
FIGURES. 23-28: *Neotes chiloensis* (Artigas). 23-25: female ovipositor in lateral, dorsal and ventral views; 26: spermathecae; 27-28: *Tsacasia wagneri*, gen. n., sp. n.: head in lateral and frontal views.



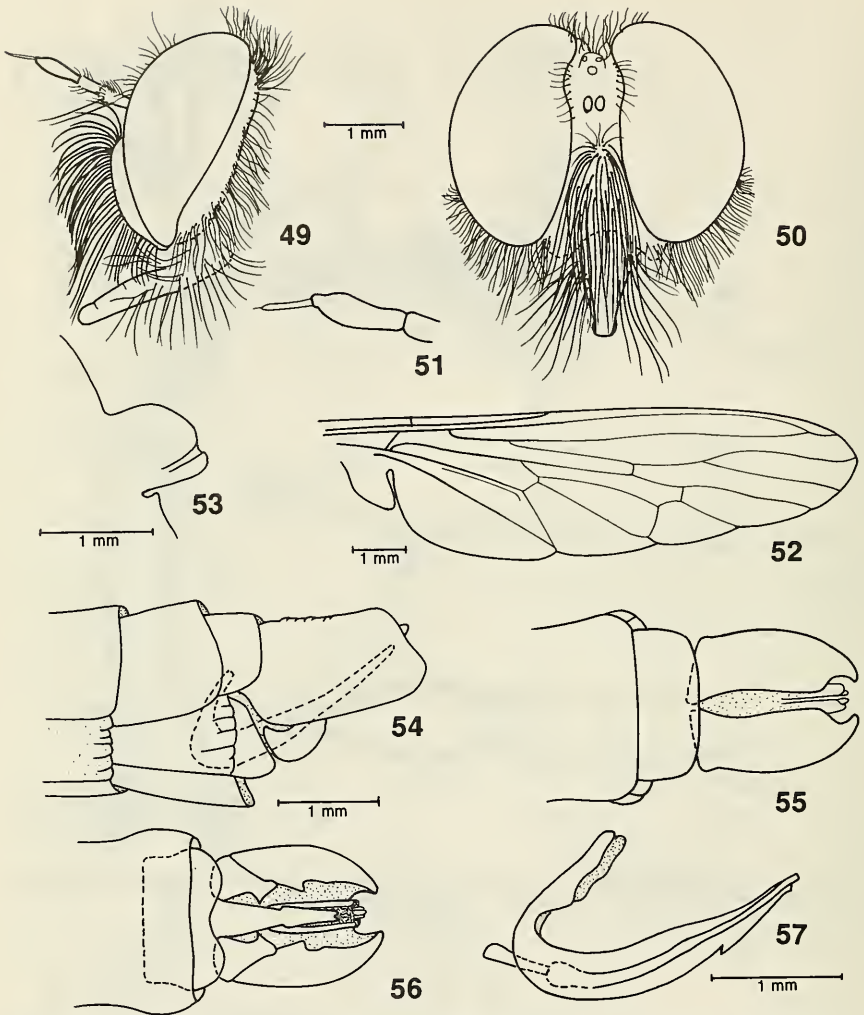
FIGURES. 29-35. *Tsacasiá wagneri*, gen. n., sp. n. 29: antenna; 30: profile of scutellum; 31-33: male terminalia in lateral, dorsal and ventral views; 34-35: female ovipositor in lateral and dorsal views.



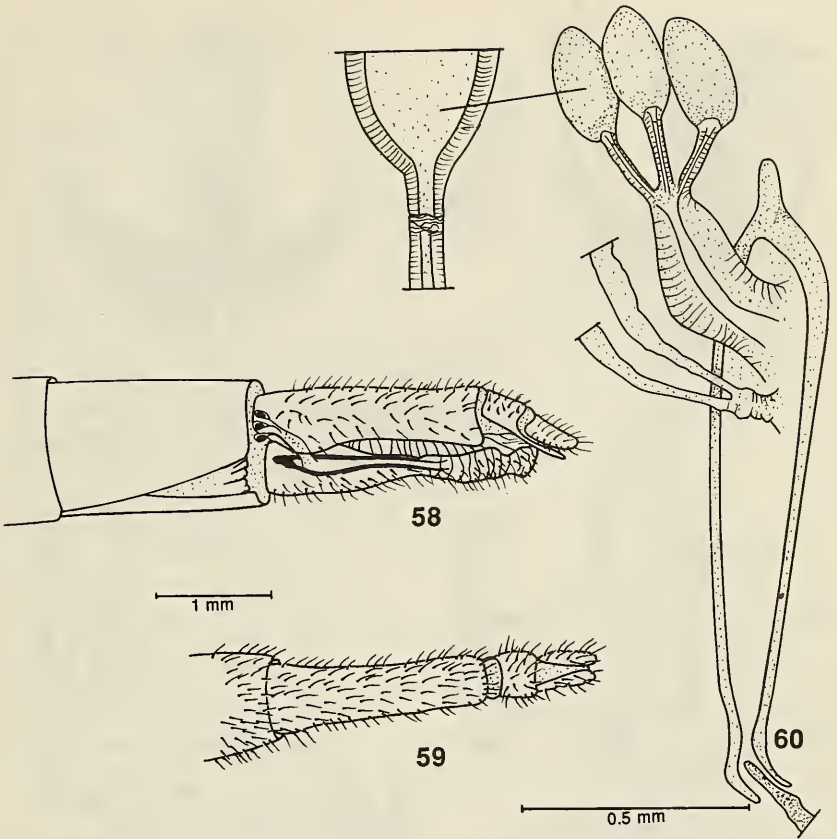
FIGURES. 36-44: *Megalometopon innisericorde* (Artigas). 36-37: head in lateral and frontal views; 38: wing; 39: profile of scutellum; 40-42: male terminalia in lateral, dorsal and ventral views; 43-44: aedeagus in lateral and dorsal views.



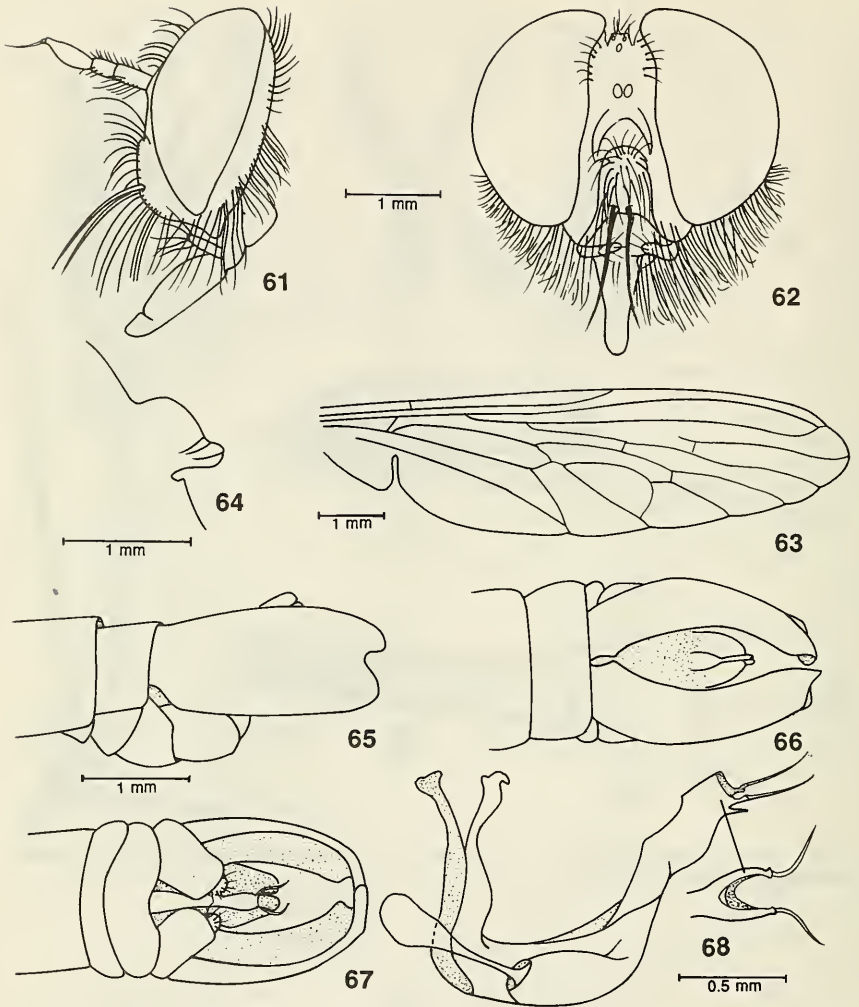
FIGURES 45-48: *Megalometopon immisericorde* (Artigas). 45-47: female ovipositor in lateral, dorsal and ventral views (fig. 45 shows the situation of the female spermathecae in the abdomen); 48: spermathecae.



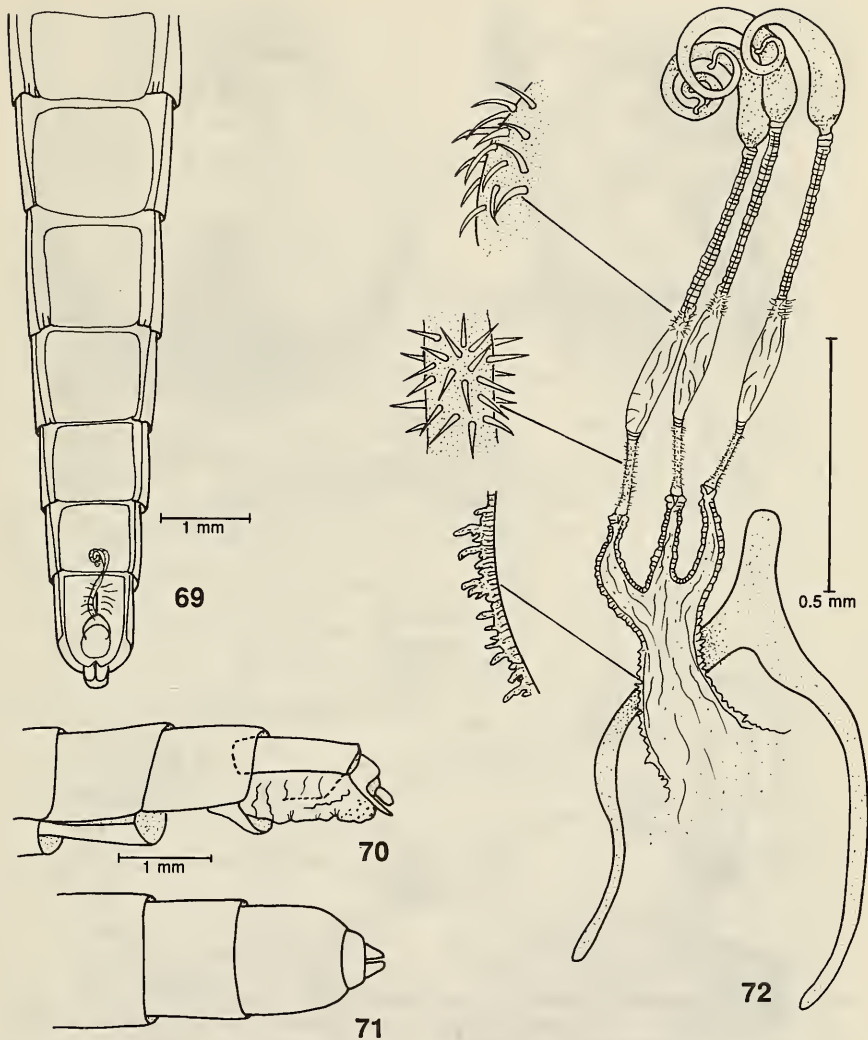
FIGURES. 49-57: *Nevadasilus blantoni* (Bromley). 49-50: head in lateral and frontal views; 51: antenna; 52: wing; 53: profile of scutellum; 54-56: male terminalia in lateral, dorsal and ventral views; 57: aedeagus.



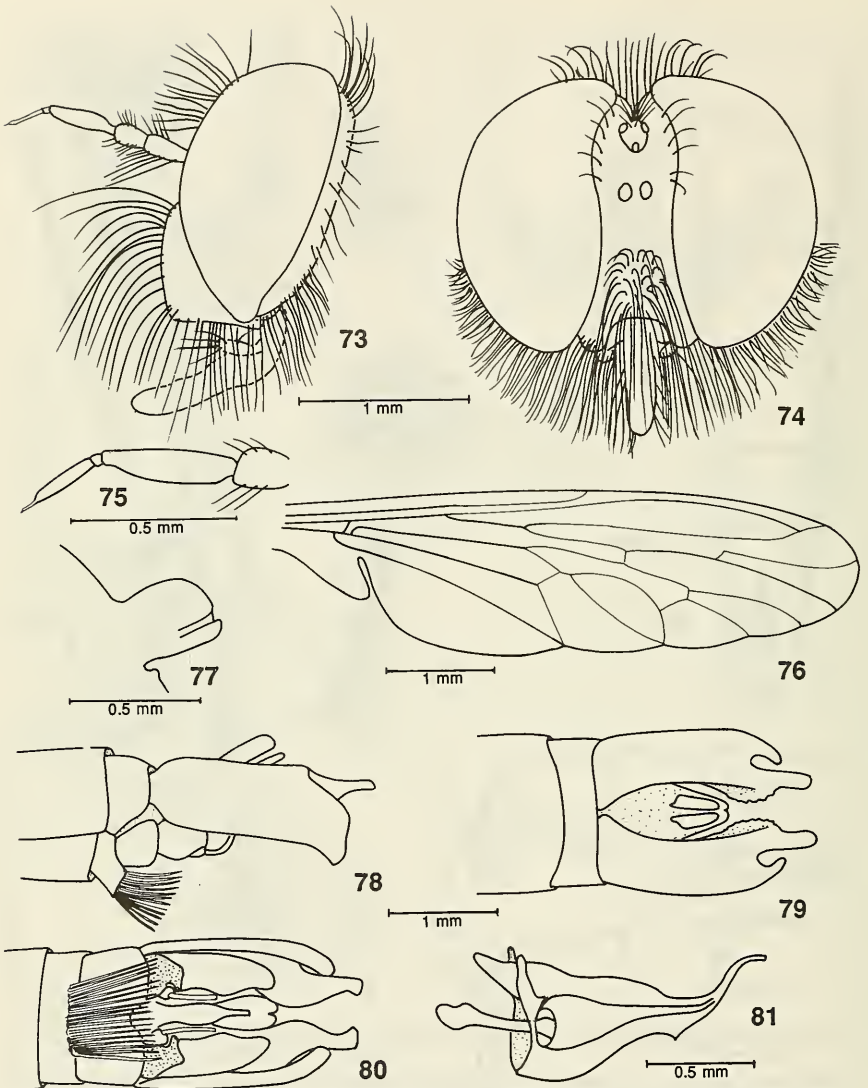
FIGURES. 58-60: *Nevadasilus blantoni* (Bromley). 58-59: female ovipositor in lateral and dorsal views (showing situation of spermathecae); 60: spermathecae.



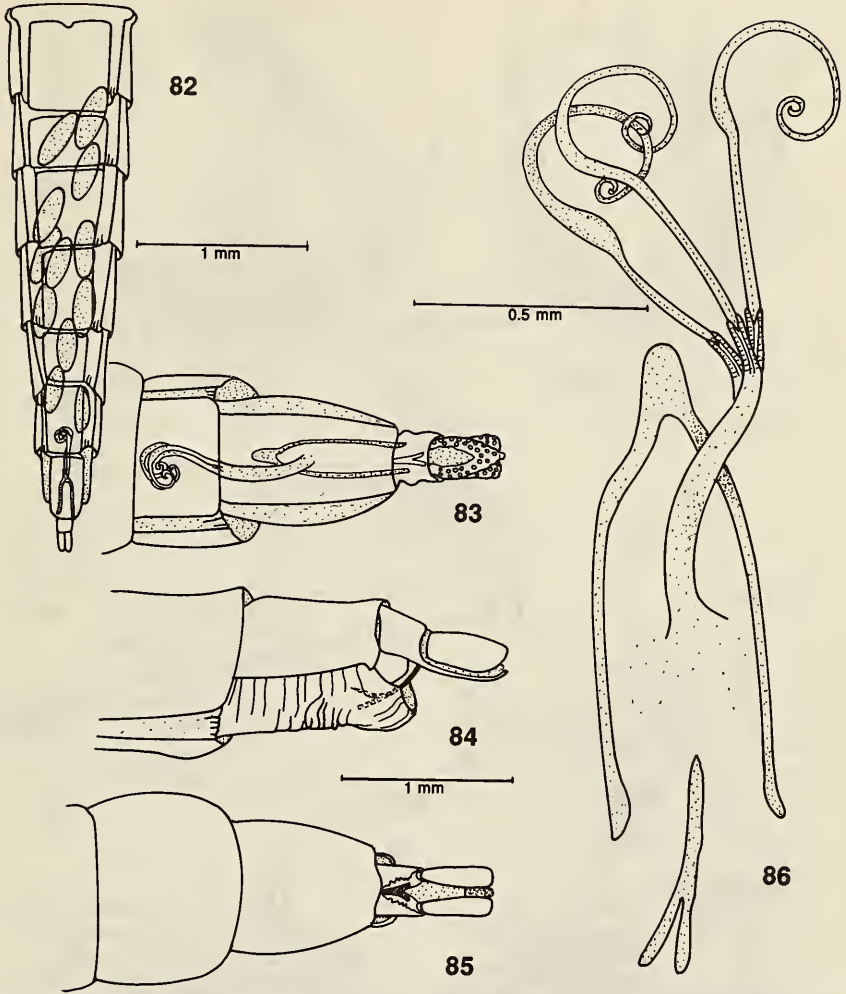
FIGURES. 61-68: *Nomomyia ivetteae* Artigas. 61-62: head in lateral and frontal views; 63: wing; 64: profile of scutellum; 65-67: male terminalia in lateral, dorsal and ventral views; 68: aedeagus.



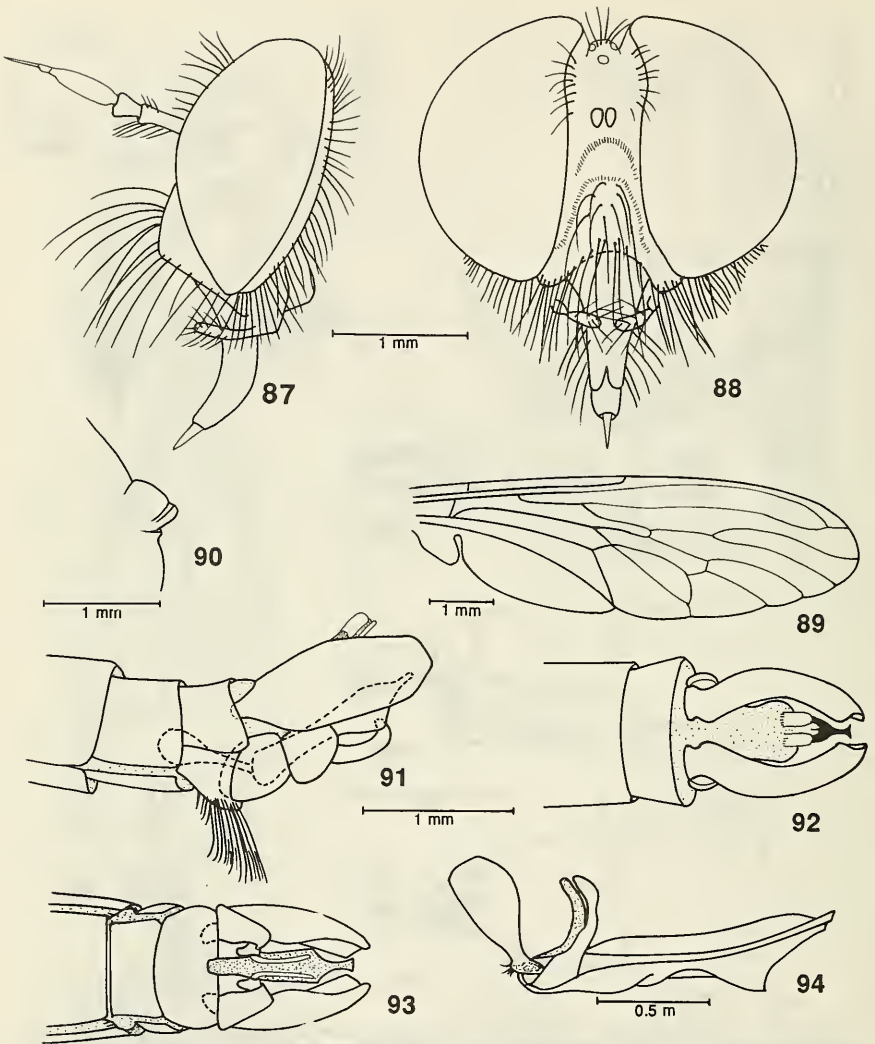
FIGURES. 69-72: *Nomomyia murina* (Philippi). 69: female abdomen, ventral view, showing situation of the spermathecae; 70-71: female ovipositor in lateral and dorsal views; 72: spermathecae.



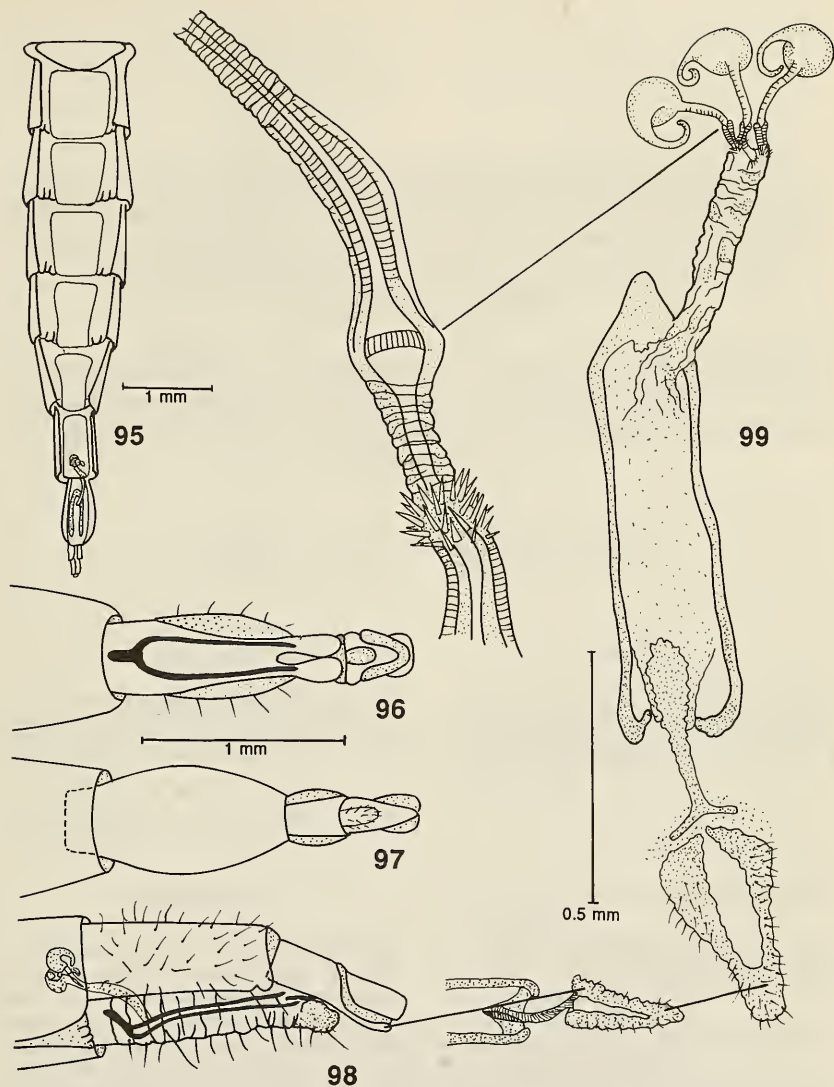
FIGURES. 73-81: *Zoticus fitzroyi* Artigas. 73-74: head in lateral and frontal views; 75: antenna; 76: wing; 77: profile of scutellum. Figs. 78-81: *Zoticus toconoensis* Artigas. 78-80: male terminalia in lateral, dorsal and ventral views; 81: aedeagus.



FIGURES. 82-86: *Zoticus fitzroyi* Artigas. 82: female abdomen, ventral view, showing situation of spermathecae and eggs; 83-85: female ovipositor in ventral, lateral and dorsal views (showing situation of spermathecae); 86: spermathecae.



FIGURES. 87-94: *Leptoharpacticus* sp. 87-88: head in lateral and frontal views; 89: wing; 90: profile of scutellum; 91-93: male terminalia in lateral, dorsal and ventral views (showing situation of aedeagus); 94: aedeagus.



FIGURES. 95-99: *Leptoharpacticus* sp. 95: female abdomen, ventral view, showing situation of spermathecae; 96-98: female ovipositor in ventral, dorsal and lateral views (showing situation of spermathecae); 99: spermathecae.